Unique lab studies human joint, muscle movement

For people who have suffered from a stroke or Parkinson's disease, what was once considered a simple movement is no longer simple.

To help study the progression or regression of the body's neurological system and how it relates to muscle and joint movements, Marionjoy Rehabilitation Hospital and Clinics and the Rehabilitation Foundation Inc. will host the grand opening of the hospital's new Motion Analysis Laboratory in Wheaton, a lab emphasizing the study of human movement, the first of its kind in the Midwest.

"In a clinic, we can only observe the end result and hypothesize about what we have observed. In a laboratory such as this, we can get closer to the underlying problem which we observe," said Tim Hanke, director of physical therapy for RehabLink, an affiliate of Marionjoy.

Dr. Alex Aruin, will be the director of the new lab. He said, "Rather than someone saying 'Yes, I feel better,' we can actually quantify it."

By calculating the force of a human joint or muscle, Aruin said, doctors will have a window into the world of normal human motion vs. that of an impaired individual to give a deeper understanding of how we function and how diseases actually inhibit the human body.

"This is the first step," Aruin said. "In about a year, we can start clinical studies."

That means, people with spinal cord injuries

Senior Research Scientist Alexander Aruin, left, explains to Frank Bauman how the new Motion Analysis system works. The cameras pick up movement of the sensors and feed the information to a computer for analysis.

Insurance companies wouldn't cover it if you tried, Aruin said.